Listing of the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1-18. (Canceled)

19. (Previously presented) A method, performed outside of a cell, for cloning an amplification product, the method comprising:

(a) obtaining an amplification product comprising, in order, a first recombination site, a product nucleic acid and a second recombination site wherein the first and second recombination sites do not recombine with each other; and

(b) combining the amplification product outside of the cell with a vector comprising, in order, a third recombination site, a negative selection marker, an antibiotic resistance gene and a fourth recombination site, wherein the third and fourth recombination sites do not recombine with each other, under conditions such that recombination occurs between the first and third and the second and fourth recombination sites, thereby producing a product vector.

20. (Previously presented) The method of claim 19, further comprising inserting the product vector into a host cell.

21. (Previously presented) The method of claim 19, wherein the product vector comprises at least one origin of replication.

22. (Previously presented) The method of claim 19, wherein the product vector comprises at least one promoter.

23. (Previously presented) The method of claim 19, wherein the amplification product is linear.

24. (Previously presented) The method of claim 19, wherein the negative selection marker is a toxic gene selected from the group consisting of *Dpn*I, ASK1, NP-1, *rps*L, *phe*S, GATA-1,and *kic*B and *ccd*B.

25. (Previously presented) The method of claim 24, wherein the toxic gene is *ccd*B.

26. (Previously presented) The method of claim 19, wherein the antibiotic resistance gene is selected from the group consisting of a kanamycin resistance gene, a chloramphenicol resistance gene and an ampicillin resistance gene.

27. (Previously presented) The method of claim 19, wherein the first, second, third or fourth recombination sites are *lox* sites.

28. (Previously presented) The method of claim 27, wherein the *lox* sites are selected from the group consisting of *lox*P sites and *lox*P 511 sites.

29. (Previously presented) The method of claim 19, wherein the first, second, third or fourth recombination sites are *att* sties.

30. (Previously presented) The method of claim 29, wherein the *att* sites are selected from the group consisting of *att*B sites, *att*P sites, *att*L sites and *att*R sites.

31. (Previously presented) The method of claim 29, wherein the *att* sites comprise a core region selected from the group consisting of SEQ ID NOs:6-16.

32. (Previously presented) The method of claim 19, wherein the first, second, third or fourth recombination sites are selected from the group consisting of a *lox* site, an *att* site, an FRT site.

33. (Previously presented) The method of claim 19, wherein the amplification product and the vector are combined in the presence of at least one recombination protein.

34. (Previously presented) The method of claim 33, wherein the recombination protein is Cre.

35. (Previously presented) The method of claim 33, wherein the recombination protein is selected from the group consisting of Int, Xis and IHF.

36. (Previously presented) The method of claim 19, wherein the amplification product is a polymerase chain reaction product.

37. (Previously presented) The method of claim 36, wherein the polymerase chain reaction product is linear.